

# Mapping the Future

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The Alabama Forestry Commission (AFC) is implementing a significant advancement in the way Geographic Information System (GIS) technology is utilized within the agency. Beginning in the spring of 2008, the AFC is making available an internet-based mapping tool to facilitate the collection and sharing of information from forest stewardship, forest health, and fire activities across the state. The mapping application will be accessed by any internet browser, such as Microsoft's Internet Explorer or Netscape, and enable AFC employees to enter their database information to a central repository. Built in Environmental Systems Research Institute's (ESRI) ArcGIS Server software, the internet mapping application represents a quantum leap in the use of GIS within the Commission to the most sophisticated, leading edge of enterprise GIS technology.

Currently, data relating to the various business processes of the AFC are recorded in separate databases on individual desktops. These databases are not in a centralized location and are non-integrated (not linked to each other). Information is difficult to share across the organization at all levels and reporting can be time consuming. Additionally, these informational databases are not presented or associated with other business process databases spatially.

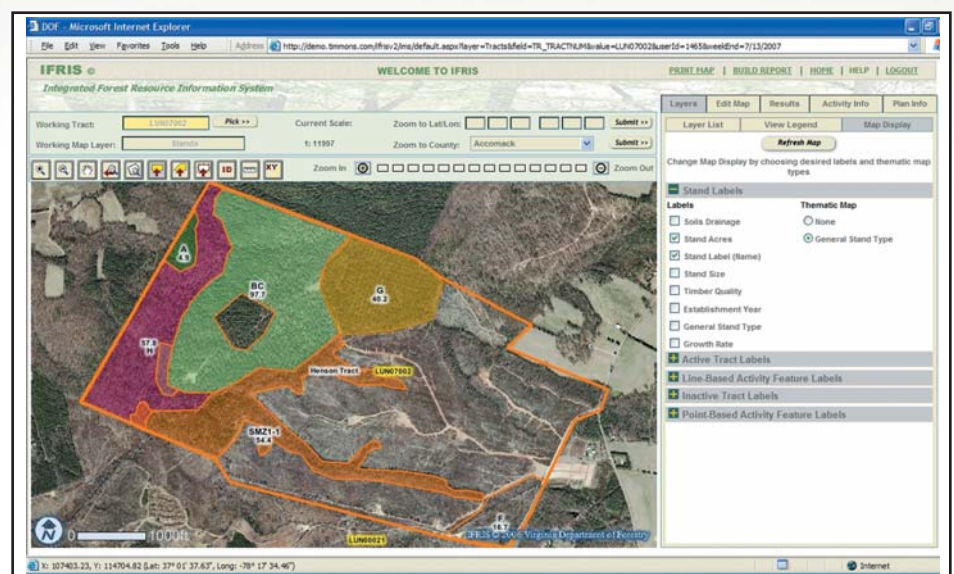
By implementing an enterprise GIS solution, the Commission can leverage new web-based database and mapping

technologies to increase efficiencies in the way we record, track, and report our activities. Benefits from the use of enterprise GIS will allow the AFC to:

- ◆Meet the demands of more rigorous reporting (i.e. USDA Forest Service, cost share, grants)
- ◆Track and summarize accomplishments more efficiently
- ◆Relate employee time to grants and programs
- ◆Provide all staff with the ability to query accurate, up-to-date data
- ◆Better manage landowner data, tract information, and management plans

- ◆Respond more quickly with landowner assistance
- ◆Provide a flexible platform to build on for future applications and directives
- ◆Automate the creation of fire status maps and have published directly to the AFC website
- ◆Preserve the geospatial history of forest management activities
- ◆Observe change in forest types and conditions through time
- ◆Facilitate regional and statewide analyses relative to other data layers

(Continued on page 22)



Webmapping example



# Mapping the Future

(Continued from page 21)

Other planned advancements for the Commission include:

## Mobile-based GIS/GPS

- Field-based data capture and wireless upload to a central server
- Remote real-time fire crew safety monitoring and fire activities mapping



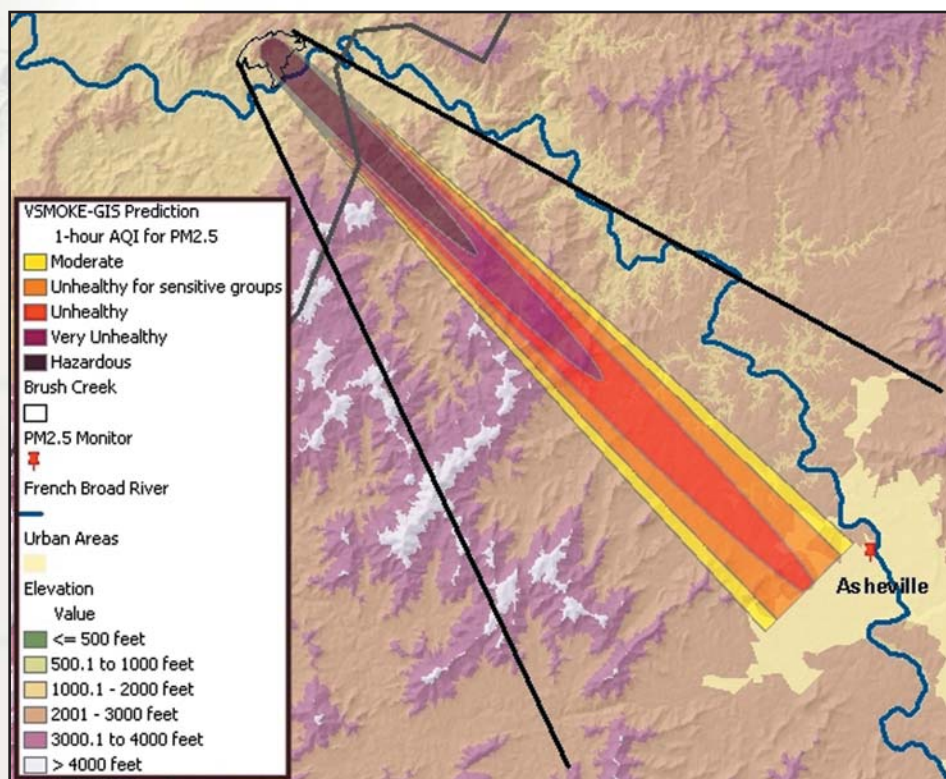
Arcpad and Recon

## Complex Spatial Analyses & Modeling

- Smoke plume prediction and mapping
- Historical longleaf pine habitat modeling
- Conservation corridors analysis and mapping
- Wildland-Urban Interface analyses

## Additional On-line Mapping Services

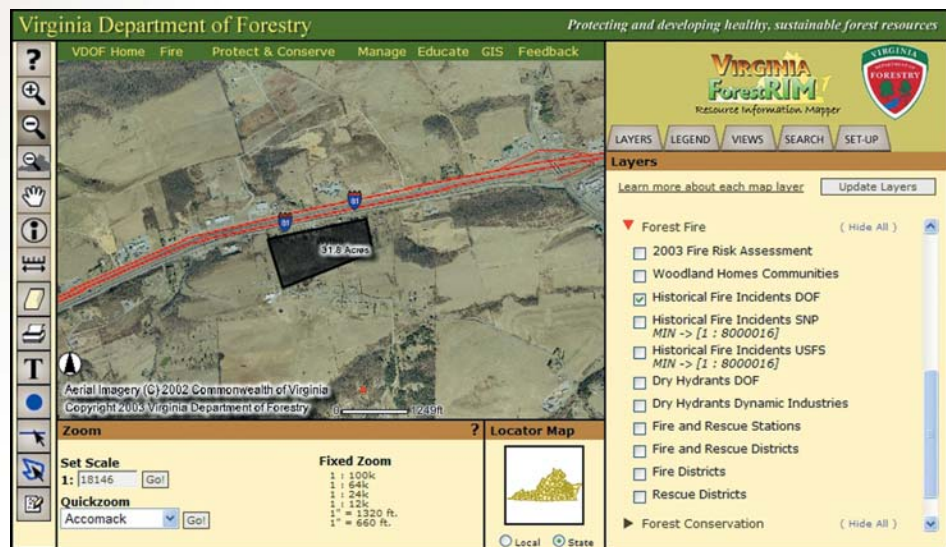
- Forest Health and Invasive Species databases
- Fire-related data entry and mapping
- Public on-line mapping and printing of forestry-related information
- GIS data download via the AFC website



Example of smoke plume prediction modeling

The mission of the Alabama Forestry Commission is (1) to protect the forests from all harmful agents; (2) to service and help landowners carry out responsible forest management on their property using professional technical assistance so as to benefit themselves, their land, and society; and (3) to educate the general

public about the value of our forests in ensuring both a healthy economy and environment. We do this in the most efficient and cost-effective way possible. Implementing enterprise GIS technology at the AFC helps ensure success with our mission for the benefit of the forest landowners of the state of Alabama. 🌲



Another example of on-line forest resources mapping